

Attachment 9

PG&E Hinkley - proposed Cleanup and Abatement Order

Summary of Performance Requirements

General

I	Implement on-going corrective actions. [“Continue to implement”]	Ongoing.
II	Shall not cause additional waste chromium to be discharged s or deposited where it is, or probably will be, discharged into waters of the State.	Ongoing.

Chromium Plume Definition in the Upper Aquifer

IV.A.	Define extent with sufficient resolution	Ongoing.
IV.C. (Contingent)	Develop and sample new MWs installed in Order IV.A. and report results in Groundwater Monitoring Program (Attachment 8).	Within 60 days of EO approval.
IV.D. (Contingent)	Add any MWs installed under requirements in this Order to the Groundwater Monitoring Program (Attachment 8).	Upon first sampling event.
IV.D. (Contingent)	Sample new MWs quarterly.	Quarterly.

Southern Plume Containment

V.C. a1 . though V.C. c3 .	Compliance requirements and violation specifics for Southern Plume Hydraulic Capture Metrics.	Duration.
V.D. (Contingent)	Implement contingency plan to re-establish Southern Plume capture, if necessary.	According to approved schedule.
V.G.	If alternative hydraulic capture zone implemented (Order V.F.), 50 ppb Cr(VI)/Cr(T) or 10 ppb Cr(VI)/Cr(T) boundaries may not expand more than 1,000 feet.	Ongoing, if contingency implemented.
V.H.	Maintain 4 ppb boundary to within 1,000 feet in eastern boundary of Southern Plume.	Ongoing.

Summary of Performance Requirements (continued)

Cleanup Requirements

VI.A.	Implement previously accepted corrective actions.	Continuously.
VI.C.	Conduct corrective actions at specified level.	Ongoing.
VI.C.1.a. (Western Area)	Cleanup and abate chromium above background in Western Area. (Continue ongoing remedial activities.)	Ongoing.
VI.C.1.b.i. (Lower Aquifer)	Cleanup and abate chromium in Lower Aquifer linked to PG&E.	Ongoing.
VI.C.1.c.i.	Reach and maintain 50 ppb Cr(VI)/Cr(T) in 90% of the 50 ppb CrVI/CrT plume.	December 31, 2025.
VI.C.1.c.ii.	Reach and maintain 10 ppb Cr(VI)/Cr(T) in 80% of the 10 ppb Cr(VI)/Cr(T) and 50 ppb Cr(VI)/Cr(T) plumes.	December 31, 2032.
V.C.1.c.iii	Reach and maintain background levels of Cr(VI) and Cr(T).	No date specified. Dependent on USGS BGS.
VI.C.2.b. (Contingent)	Cleanup and abate any "hot spots" in the Northern Area.	Within 45 days of accepted workplan.
VI.C.2.c. (Contingent)	If USGS BGS indicates, no further remedial action required in the Northern Area.	-

Replacement Water Supply

VII.A.1.a. (Contingent)	Supply interim water supply if a domestic well exceeds the MCL.	Within 10 days of lab report.
VII.A.2.ba. (Contingent)	Supply long-term water supply if a domestic well qualifies.	Within 45 days of EO approval of workplan.

Independent Consultant

VIII.A.	Continue to fund an independent consultant.	Ongoing.
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Monitoring and Reporting Program (See Attachment 8)

I.B.1. & 2.	Collect groundwater elevation data and samples from MWs.	Quarterly (or less).
I.B.3.	Analyze groundwater samples for required constituents.	Quarterly.
I.C.1.	Sample MWs as specified in the monitoring programs for the ATU and IRZ permits.	As specified in ATU and IRZ permits.
I.D.	Collect groundwater elevation data and samples from MWs in the Northern Areas.	Quarterly (or less).
I.E. (Contingent)	Sample domestic wells in the north with MCL exceedances.	Quarterly and semi-annually.
II.B. (Contingent)	Implement recommended cleanup actions not	Within 30 days of

	requiring Water Board approval.	the Annual Report due date.
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PG&E Hinkley CAO

Summary of Submittal Requirements

General

III	Upload documents to Geotracker	Within one business day of the document date.
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Chromium Plume Definition in the Upper Aquifer

IV.B.	Either submit a workplan to install MWs if change in land access status occurs or submit a technical justification explaining why additional wells are not necessary.	Within 30 days of the date th is <u>is</u> Order is adopted.
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Southern Plume Containment

V.B.	Submit Hydraulic Capture Metric Reports	Quarterly, beginning January 15, 2016.
V.D. (Contingent)	Submit contingency plan to re-establish capture, if necessary.	15 th of the month following quarterly report submittal.
V.D. (Contingent)	Submit Hydraulic Capture Metric contingency assessments and subsequent corrective actions, if necessary.	Monthly, by the 15th of the month.
V.E. (Contingent)	Notify Water Board when hydraulic capture contingency actions are taken, if necessary.	Within one week.
V.F. (Optional)	PG&E may propose more optimal alternative hydraulic capture zone.	Upon EO approval.

Summary of Submittal Requirements (continued)

Cleanup Requirements

VI.B.	Submit "Annual Cleanup Status and Effectiveness" report and an "Operations Plan"	Annually, beginning February 28, 2016 until February 2020 (when the Operations Plan will be replaced by a Four-Year report).
VI.B.	Notify the Water Board if reductions of more than 10 percent in corrective actions are necessary.	Prior to implementing the corrective actions.
VI.C.1.a.ii. (Contingent)	Submit technical report if CrVI exceeds 10 ppb in Western Area sentry MWs.	Within 60 days from submittal of quarterly site-wide groundwater monitoring report.
VI.C.1.a.iii.	Submit technical report regarding feasibility of achieving background based on USGS Preliminary BGS.	Within 60 days of acceptance of USGS Preliminary BGS (scheduled for release by September 2017).
<u>VI.C.1.b.ii</u>	<u>Submit technical report evaluating background concentrations in lower aquifer.</u>	<u>Within 180 days of this Order.</u>
<u>VI.C.1.b.iii</u>	<u>Submit feasibility assessment to cleanup to background concentrations.</u>	<u>Within 90 days of Water Board acceptance of VI.C.1.b.ii.</u>
VI.C.1.c.iv.	Submit a four-year cleanup status and effectiveness report.	Beginning March 30, 2020, and every four years thereafter (in lieu of the Annual Report required in MRP Order VI.B.).
VI.C.1.c.iv. (Contingent)	Submit workplan if cleanup actions are not achieving expected results.	Within 30 days of the Four-Year Report due date.
VI.C.2.b. (Contingent)	Submit a workplan if a "hot spot" trigger is met.	Within 30 days of receiving lab report.
<u>VI.C.2.d (Contingent)</u>	<u>Submit a feasibility assessment.</u>	<u>Within 180 days of USGS submittal.</u>

Summary of Submittal Requirements (continued)

Replacement Water Supply

VII.A. (Contingent)	Provide an analysis whether a domestic well water is subject to increasing trend likely to exceed CrVI MCL within a year.	In each quarterly monitoring report, beginning first quarter 2016.
VII.A.1.b. (Contingent)	Submit a report of properties being provided with interim replacement water.	Within 7 days of each quarterly report.
VII.A.2.a. (Contingent)	Submit a workplan outlining long-term replacement water supply for all drinking and cooking uses.	Within 45 days of <u>this</u> Order being issued.
<u>VII.A.2.b.</u>	<u>Submit a “new technology” evaluation.</u>	<u>Within 21 days of identifying an affected well.</u>
VII.A.2.c. (contingent)	Submit a report of properties being supplied long-term water supply.	Quarterly.

Independent Consultant

VIII.B.	Submit a report that includes the scope of work and budget for 12-month past and 12-month future, for the independent consultant.	Annually.
VIII.C.	The annual workplan for the independent consultant is subject to EO approval.	Annually.

Monitoring and Reporting Program (Attachment 8)

II.A.	Submit groundwater monitoring reports	Quarterly, on Jan 30 th , April 30 th , July 30 th , and Oct 30 th .
II.B.	Submit Annual Cleanup Status and Effectiveness and Operational Plan report (“Annual Report”)	February 28, 2016 February 28, 2017 February 28, 2018 February 28, 2019
II.C.	Submit Four-Year Comprehensive Cleanup Status and Effectiveness reports (“Four-Year Report”)	March 30, 2020, and every four years thereafter.
II.C. (Contingent)	Submit workplan if cleanup actions are not achieving expected results.	Within 30 days of the Four-Year Report due date.
III.D.	Upload documents to Geotracker	Within one business day of the document date.

Abbreviations:

ATU – Agricultural Treatment Unit
BGS – Background Study
EO – Executive Officer

IRZ – In-Situ Reactive Zone
MCL – Maximum Contaminant Level
MW – monitoring well

USGS – United States Geological Survey